

L. B. STILSON & J. G. PAYSON.
DUMPING APPARATUS.

No. 109,776.

Patented Nov. 29, 1870.

Fig. 4.

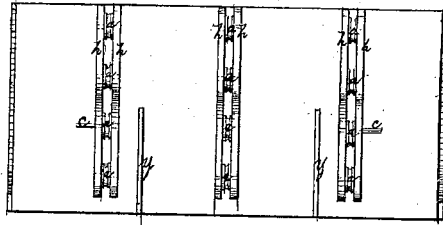


Fig. 2.

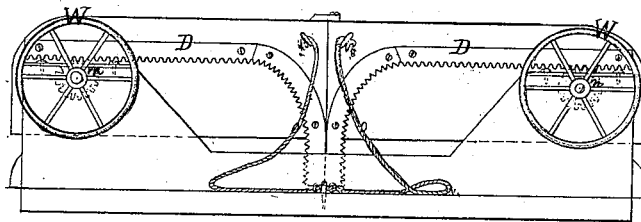


Fig. 3.

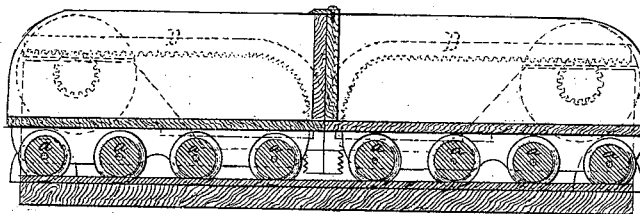
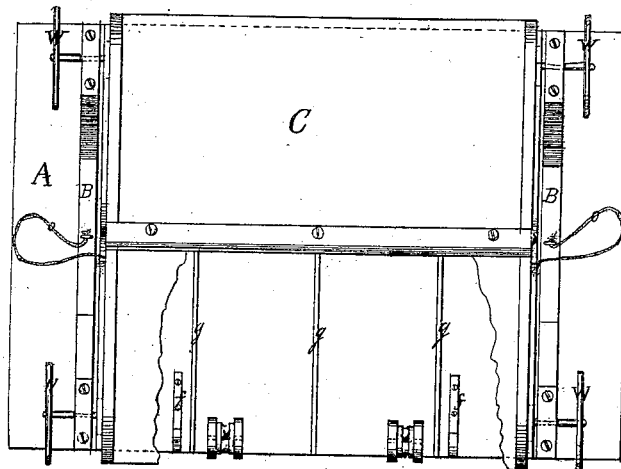


Fig. 1.



Witnesses:
Chas. Kemper,
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LYMAN B. STILSON AND JAMES G. PAYSON, OF MINNEAPOLIS, MINNESOTA.

Letters Patent No. 109,776, dated November 29, 1870.

IMPROVEMENT IN DUMPING APPARATUS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, LYMAN B. STILSON and JAMES G. PAYSON, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and valuable Improvement in Dumping Attachment for Flats; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is our invention in plan view, with portion of dumper removed to show the flat.

Figure 2 is an end view of our invention, showing the operating gear.

Figure 3 is a vertical cross-section

Figure 4 is a bottom view of one of the dumpers.

Our invention has relation to means for ballasting and filling the beds of railways, and consists in the novel construction and combination of devices intended for transporting gravel upon and dumping it from the ordinary transportation cars called flats.

A of the drawing represents the top of an ordinary flat, to which our apparatus is attached by means of bolts that are passed through the end pieces B B.

The letter C represents a carrying and dumping-box, constructed with open top and front, as shown, and having affixed to the outer side of each end a ratchet-bar, D, curved in the manner represented on figs. 2 and 3.

The letter *a* represents a series of rollers arranged upon the bottom of the box C, between slats *h*, in the manner shown on fig. 1; and the letter *v* represents bars with convex surfaces attached to the bottom of said box, and adapted to run in the grooves of the wheels *y* upon the platform of the car.

The letters *c* represent pins affixed to the slats *h*, as shown, and are intended for use in the dumping process, as hereinafter mentioned.

The letters *f* represent hooks attached to the upper surface of the platform, and operate in conjunction with pins *c*, as stated hereafter.

The letters *g* represent bars with rounded upper surfaces attached to the top of the platform, and serve as tracks for the rollers *a* of the box.

The letters *n* represent pinions adapted to operate in the teeth of the ratchet-bars D. They are respectively attached to the inner ends of the rotating shafts *z*, and operated by means of the hand-wheels W.

The letters *o* represent cords affixed to the dumping-box and the end pieces B, and serve to aid in preventing said box from being thrown from the car while the dumping process is carried on.

We usually place two of these dumping-boxes on a flat, one of which is moved to the right side and the other to the left of said flat, as shown in the drawing.

Our apparatus is operated as follows, namely:

After being arranged upon a flat, as above mentioned, the boxes are filled with gravel and the cars moved to the place of destination. The operator then turns the hand-wheels W, and the boxes are gradually moved outward until the pins *c* engage with the hooks *f* and the circular portions of the ratchet-bars are passed over the pinions. By this means the loads of the boxes are carefully and almost noiselessly discharged upon the road-bed. The boxes are then placed in their original positions and are ready for other loads.

We are aware that dumping-boxes have been attached to cars, and we therefore do not claim, broadly, the invention of such attachment; but

What we claim as our invention is—

1. The combination of the carrying and dumping apparatus herein described with the bed or platform of a flat, substantially as and for the purpose specified.

2. In a dumping-box for railway cars, the circular ratchet-bars D, when constructed to operate substantially as and for the purpose mentioned.

3. The combination of the bars or tracks *v* and *g* with the rollers *a* and *y*, substantially as and for the purposes specified.

In testimony that we claim the above, we have hereunto subscribed our names in the presence of two witnesses.

LYMAN B. STILSON.
JAMES G. PAYSON.

Witnesses:

D. D. KANE,
F. B. CURTIS.